APPLN. FILING DATE: FEBRUARY 14, 2005
TITLE: A COMPOSITION COMPRISING
PHYTOSPHINGOSINE DERIVATIVES FOR APOPTOSIS
INDUCTION

INVENTOR(S): HYE-JUNG KIM ET AL. APPLN. NO.: 012679-111

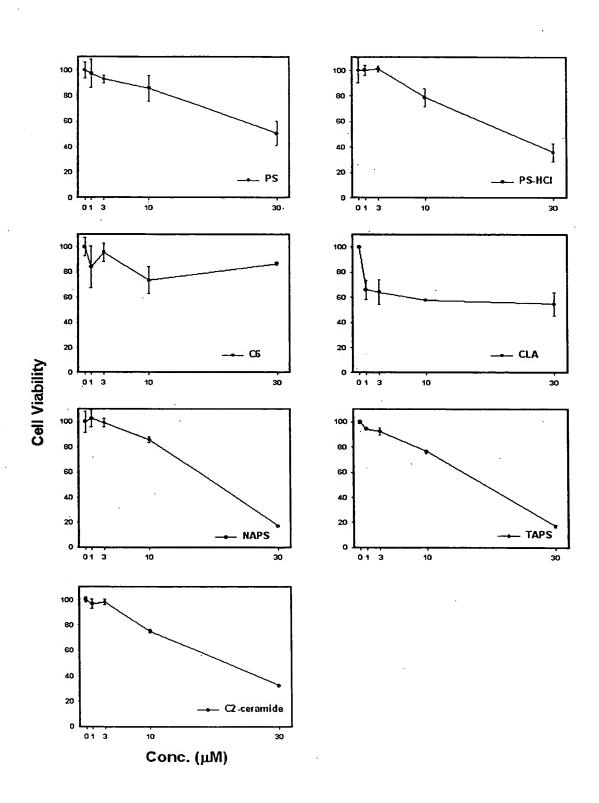
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[DRAWING]

[FIG. 1]



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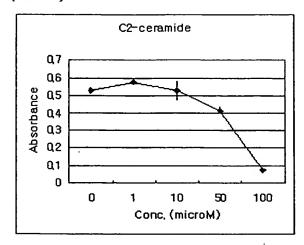
APPLN. FILING DATE: FEBRUARY 14, 2005 TITLE: A COMPOSITION COMPRISING PHYTOSPHINGOSINE DERIVATIVES FOR

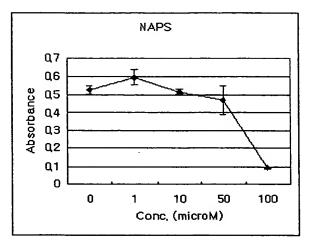
APOPTOSIS INDUCTION
INVENTOR(S): HYE-JUNG KIM ET AL.
APPLN. No.: 012679-111

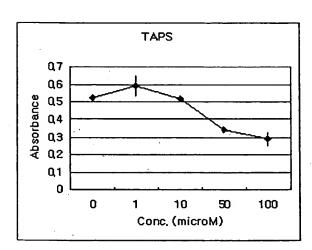
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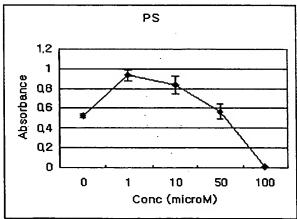
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[FIG. 2]









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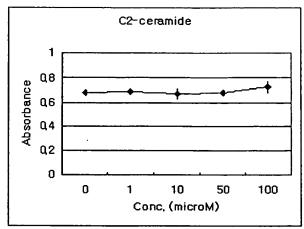
INDUCTION INVENTOR(S): KIM, TAE-YOON ET AL. APPLN. No.: 012679-111

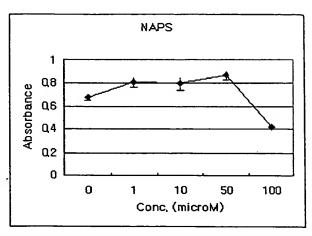
**SHEET 3 OF 10** 

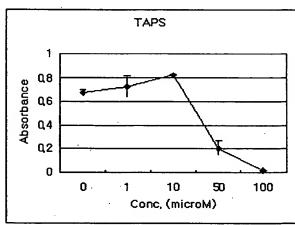
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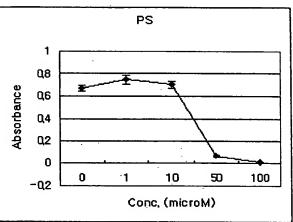
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[FIG. 3]









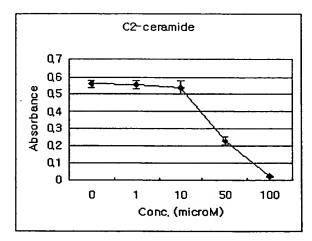
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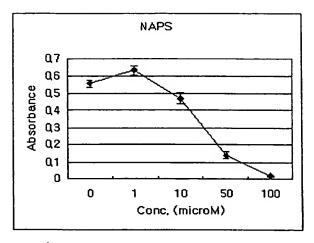
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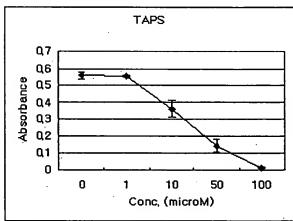
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INVENTOR(S): KIM, TAE-YOON ET AL.
APPLN. No.: 012679-111
SHEET

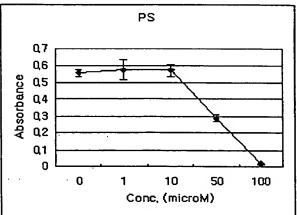
**SHEET 4 OF 10** 

[FIG. 4]





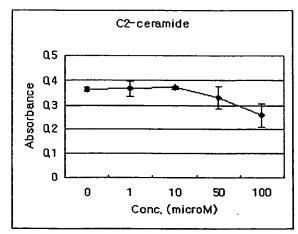


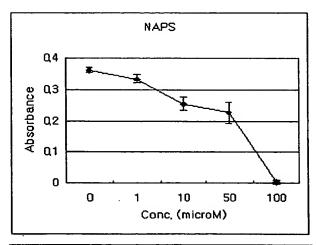


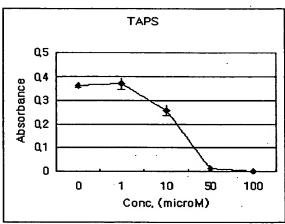
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INDUCTION
INVENTOR(S): KIM, TAE-YOON ET AL.
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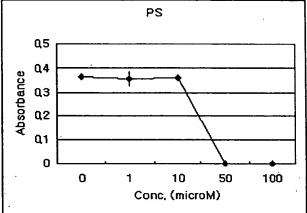
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[FIG. 5]







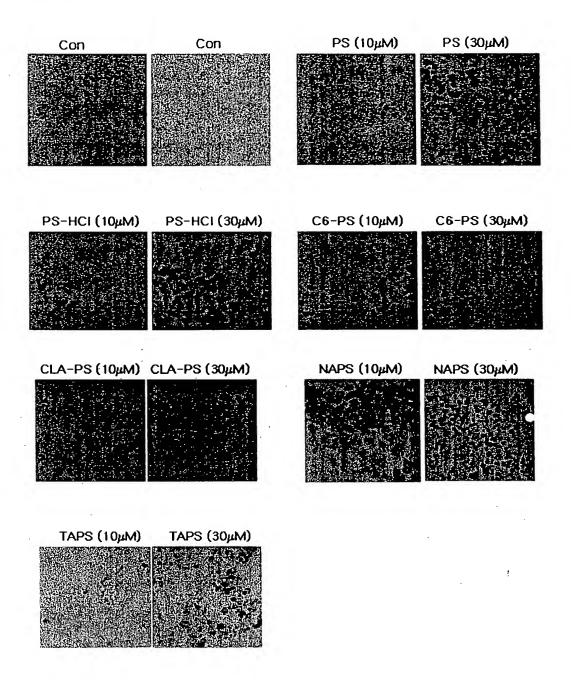


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[FIG. 6]

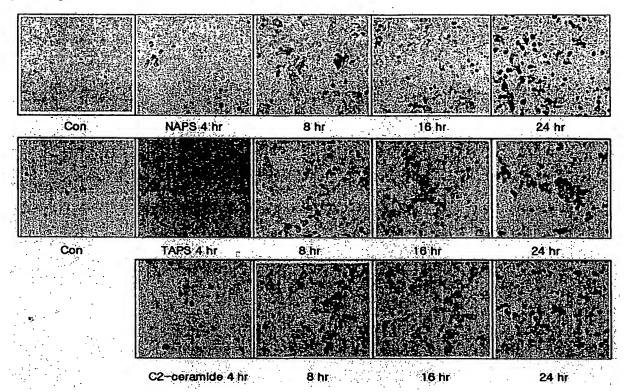


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INVENTOR(S): KIM, TAE-YOON ET AL.
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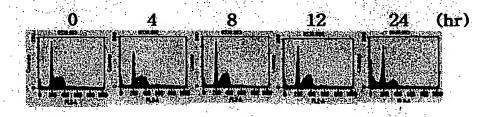
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## [FIG. 7]



[FIG. 8]



Time(h)	Cells in phase(% of total)		
	G <sub>1</sub>	S	G <sub>2</sub> /M
0	31.85	63.07	5.08
4	29.17	66.26	4.58
8	34.84	47.37	17.79
12	36.97	38.65	24.38
24	56.40	24.38	16.85

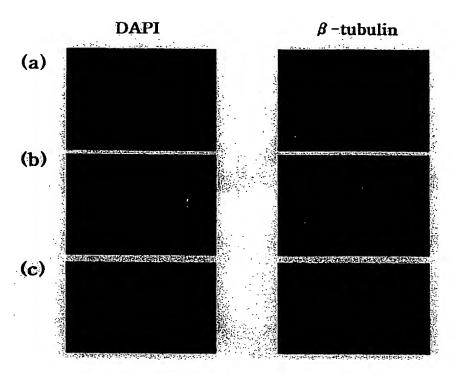
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APOPTOSIS INDUCTION
INVENTOR(S): KIM, TAE-YOON ET AL.
APPLN. No.: 012679-111

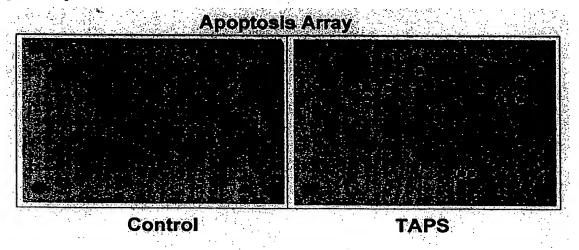


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[FIG. 9]



[FIG. 10]



COX-2 (Apoptosis related)

p16 (Cell Cycle Regulator) p100/NF-kB2 (Signal Transduction Factor)

PIN (Apoptosis related)

p21 (Cell Cycle Regulator) ref-1 (Signal Transduction Factor)

Survivin (Apoptosis Suppressor) p53 (Cell Cycle Regulator) TRAIL (TNF-super family)

MCI-1 (BCI-2 related)

RbAp48 (Cell Cycle Regulator)

PARP (Caspase related)

IL-1β (Cytokine)

c-myc (Cell Cycle Regulator)

14-3-3 protein (Signal Transduction Factor)

Cyclin A2 (Cell Cycle Regulator) BCI-10 (Signal Transduction Factor)

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INVENTOR(S): KIM, TAE-YOON ET AL. APPLN. NO.: 012679-111

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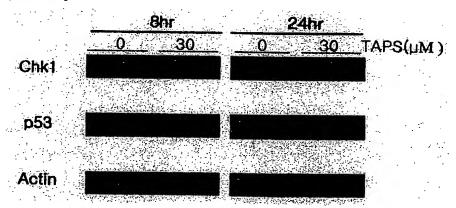
[FIG. 11]

## Caspase-3 induction by NAPS, TAPS and C2-ceramide

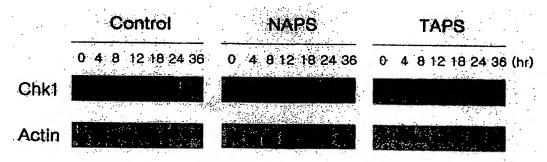
NAPS
TAPS
C2-ceramide

con 15 m 30 m 1 h 3h 6h 12 h 24 h

[FIG. 12]



[FIG. 13]



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APOPTOSIS INDUCTION
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[FIG. 14]

